



Montgomery County Fire and Rescue Service

POST INCIDENT ANALYSIS

**2nd Alarm Apartment Fire
8708 Barron Street
Takoma Park, MD**

Incident Date: February 16, 2012



**Submitted by
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On April 22, 2012**

Incident Overview

Note: This post incident analysis is based upon the review of the incident audio tape, interviews with crews who operated at the fire scene and the completion and review of PIA Unit Fact Sheets. As of April 1, 2012, Unit Fact Sheets have not been received from the Unit Officers of the Prince Georges County units or C705C – therefore, the PIA may not accurately reflect the actions taken by those units.

On February 16, 2012, at 0652 hours, MCFRS units responded to 8708 Barron Street, Takoma Park, MD for a report of smoke in the building. Weather conditions at the time of incident were clear with temperatures in the low 40s and a slight wind. Since this was a weekday, the morning rush of commuter and school traffic was well underway.

Units arrived on the scene to find a 4-story, (older style) apartment building with fire and smoke conditions showing from the top floor on Side C. There were numerous occupants visible on Side A at several windows on the 2nd and 3rd floors. An aggressive interior attack was mounted and the fire was contained and extinguished using a 2nd alarm complement of apparatus and personnel.

During the course of fire fighting operations, the occupants of the fire apartment could not be located. The primary search of the fire area had proven negative, however, the whereabouts of the occupants were unknown and a significant language barrier existed among the remaining occupants making it difficult for fire/rescue personnel to locate any injured parties.

Eventually, the six occupants of the fire apartment were located outside of the building: each was evaluated for injury. In the end, a 27-year old female was transported Priority 3 to Washington Adventist Hospital for evaluation after possible smoke inhalation; all other occupants refused transport. There were no fire fighter injuries.

An origin and cause examination was conducted by MCFRS Fire and Explosive Investigations. The findings of that examination indicated that fire started in the kitchen area of Apartment #8 and was possibly caused by a malfunctioning refrigerator.

Damage to the structure at 8708 Barron Street was extensive in Apartment #8 with moderate damage to the adjoining apartment – Apartment #7. Total loss estimates for this fire were \$25,000 structure and \$10,000 contents.

Structure/Site Layout

- The structure at 8708 Barron Street is part of a much larger apartment complex which includes multiple units and addresses in the Barron and Gilbert Streets area.
- The fire building was built of Type II construction with no fixed fire suppression systems. The fire building had a local fire alarm system and smoke detectors in the individual apartments.
- The roof assembly was comprised of corrugated metal decking supported by unprotected steel bar joists. The roof surface was a tar and chip over plywood covering - all supported by the steel joists. There was a common “cockloft” space under the entire roof.
- The fire building “touched” similar buildings at 8706 and 8710 Barron Street – however, there was no interconnection and no fire spread to either adjacent apartment building.
- The fire building had a center enclosed stairwell as the only means of egress.
- From the front, the fire building presented a 4-story view; from the rear, a 5-story view with garages on the lowest level.



Foxhall Apartment Complex – (Google Maps)



Side A



Side B (Exposure B – 8710)



Side C



Side C



Apartment Layout



View from approach on Piney Branch Road.



View from fire apartment: many similar structures.

Fire Code History

- A review of the past and current fire code requirements for the structure revealed no code compliance issues.
- However, it should be noted that had the structure been protected by an automatic sprinkler system, the fire most likely would have been confined to the kitchen area of Apartment #8 – and quite possibly extinguished prior to the arrival of MCFRS personnel.

Communications

- The incident was dispatched for smoke in the building. While units were enroute to the call, ECC updated the information to include smoke coming from the top floor at the Charlie-Delta corner.
- The 7-Charlie dispatcher did a very good job communicating – especially in echoing the requests for additional resources.
- Once Battalion 701 arrived on the scene and an Incident Command Post (ICP) was established, 7-Delta was used to manage the units in staging and 7-Echo was used for all EMS operations.
- VRS was not needed, nor was it engaged.
- This was the first “working fire” incident for Battalion 701 personnel using the new remote microphones on the Motorola APX 7000 portable radios – there were no issues.

Pre-Emergency Planning

- There were no pre-fire plans for the structure other than a “complex” map drawn by Station 2 personnel.

- The operations at this fire did not require any special pre-fire plans.

On Scene Operations

- The structural integrity of 8708 Barron Street was never really in question during the operation. Although heavy fire conditions existed in the fire apartment, initial crews made an aggressive interior attack that quickly darkened down the fire and structural compromise never occurred.
- Class A foam was not available or used during the initial fire attack because the foam system on the first-arriving engine was out of service. The fire was brought under control using two attack lines (both flowing plain water) – with a third in position if needed.



Shortly after the arrival of BC702.

- With so many occupants fleeing the building on arrival and the unknown status of the remaining occupants – companies engaged in a “rescue” mode of operation expecting to find occupants in need of rescue. None were found – however, the language barrier was severe, which resulted in significant delay in terms of accounting for everyone.
- At one point, there was concern over possible fire spread into the cockloft area based upon the assumption of a wooden roof assembly. Truck 834 was assigned to open the roof in order to stop the fire spread - only to find a metal roof assembly and no fire spread.
- Command was established by T716 in the Attack Mode and was transferred to BC701 upon his arrival.
- The ICP was BC701’s vehicle which was parked across the street from 8708 Barron Street. The ICP was identified using a roof-mounted, green strobe light.
- A command team was built using BC701, BC702, and DC700. The team operated without incident. Units arriving on the fire scene

reported to the ICP for instructions or were directed to an assignment via radio.

- Upon the arrival of BC701, companies were still stretching attack lines and heavy fire and smoke was evident over the roofline from the Side A vantage point. BC701 also saw numerous occupants at windows on Side A of the structure and assumed that rescues would be needed.
- The initial command size-up determined an advanced fire on the top floor of an occupied multiple family occupancy with extension expected into the cockloft area.
- The initial command objectives/strategies mirrored RECEO VS with searches being the primary focus followed by controlling the extension into the cockloft area.
- All initial efforts were directed at fire control in Apartment #8 while supporting searches of the effected occupancies.
- A 2nd Alarm was requested by BC701 upon his arrival in order to get additional resources to the scene in a timely manner.
- The Safe Structure Fire Fighting SOP was followed and units did a good job of completing tasks and following additional orders issued by command.
- The fire was placed under control at 0715 hrs by Command.
- The incident was broken into the following groups/divisions: Division 4, Roof Division, Charlie Division, EMS Group, Rapid Intervention Group, Rehab, and Staging. All divisions and groups interacted and communicated effectively.
- Apparatus access was not an issue and both ladder trucks on the 1st Alarm had good positions and were used effectively in the fire attack operation.
- Attack line selection was adequate for the fire conditions presented and the type of occupancy. Because the fire building was not equipped with a standpipe riser, all three attack lines (1-3/4" and 2") were at least 300-feet in length.
- The fire had self-vented on Side Charlie prior to the arrival of MCFRS units. A 4-ft by 4-ft ventilation hole was cut in the roof over the fire apartment and this hole proved valuable in assessing fire extension in the cockloft area.
- The available water supply for the incident was adequate.

Staging

- The 2nd Alarm units were staged at the intersection of Piney Branch Road and Barron Street. The officer on Engine 712 served as the Staging Area Manager. Units reported to the ICP for assignment or were given orders directly via radio.

Support Functions

- Rehab was established to the rear of the ICP on Gilbert Street and was handled by A701.
- All alerted canteen units failed to respond and by the time one was located that could respond the incident was in the demobilization phase. Thus, there was no canteen service provided.
- Crews were relieved by fresh crews, or by crews leaving Rehab.
- There was a significant issue with the number of occupants evacuated from the fire building. The main problem was trying to locate who had been evacuated and their status in terms of injury and housing needs. Very few of the evacuees spoke English – so much of the work in this area was completed via translation.
- A total of 15 occupants were displaced and three apartments were posted by Code Enforcement Officials for no occupancy.
- There were no equipment or apparatus failures.
- Functions with outside agencies were properly coordinated (i.e. Police, Gas and Power Company,)

Safety Group

- Ambulance 702 was assigned as the Standby Team. However, Command released the Standby Team requirement upon seeing all of the occupants in various stages of exodus.
- A702's crew then assisted T716's driver in deploying ground ladders for rescue. The crew was able to deploy a 24-ft, 28-ft and 35-ft ground ladder to Side A for rescue operations.
- A702's crew also assisted E702 and E716 stretch their long attack lines ensuring that kinks were removed.
- E701 assumed the RIC upon their arrival.
- AT719 was pulled from the RID to evacuate the occupants at 8706 and 8710 Barron Street; Once those evacuations were completed – AT719 joined the RIG.
- Safety 700 was assigned as the Safety Officer for the incident and there were no safety issues noted.
- The RIG was established on Side Alpha with E701's OIC serving as the Supervisor.

Accountability

- No accountability board was used. Crews were accounted for by using the ICS tactical worksheet and the Daily Line-Ups carried in the BC701 car.
- An automatic, incident timer on the BC701 MDC was used to run a 15-minute incident duration reminder.

Investigations

- The origin of fire was located in the kitchen area with a possible malfunctioning refrigerator listed as the cause of the fire.
- FM55 was the lead fire investigator and FM 15 handled the evaluation of code issues and the reoccupying of the structure.

Lessons Learned

- The first arriving company officer (T716) provided a good on-scene report, established command, and went to work searching for possible trapped occupants. These actions “set the tone” for the remainder of the incident.
- E702 was a 3-person engine company which made stretching the 300-ft attack line more difficult. Fortunately, A702’s crew was able to help some in getting the attack line deployed.
- The building layout was not complicated, however, the single stairwell quickly got crowded with the deployment of three attack lines. All occupants were able to self-rescue, but consideration should be given when stretching a third attack line to find an alternate route into the building.
- T716 was a three-person crew and was hampered in placing ground ladders. The driver of T716 worked by himself for awhile deploying ladders and doing exterior work. A fourth person would have proven more effective for fire ground operations. Fortunately, A702 was also able to help deploy ground ladders. Had there been a need for immediate patient care – ground ladder deployment would have been delayed.
- E702, E701, and E716 all arrived on the scene at about the same time. There was some confusion over layout instructions and which unit was to supply which unit. Part of this confusion was created when E701 (3rd Due) arrived and engaged in water supply operations. The outcome of the water supply operation was acceptable – however, the process in getting there created confusion for other units responding.
- At one point, inadequate operating pressure was reported on the initial attack line. That matter was corrected, but not before E702’s crew resorted to using E716’s attack line to attack the fire. This was a very good example of two companies working together to get an attack line in service.
- The local fire alarm system had not been activated – yet heavy fire and smoke was issuing from the top floor. Numerous occupants on the lower floors were not aware of the fire in the building. E716 activated the local alarm system to assist in occupant notification – which helped in the evacuation process.

- Heavy pad locks were found on the doors leading to the utility control areas which delayed forcible entry into those areas for utility control.
- Radio traffic at times was heavy – but messages were able to get through. The ICP was using/monitoring 7C, 7D, 7E, and 7O.
- The 2nd Alarm request by Command brought more units than expected: 5 engines, 2 trucks, 1 rescue squad, 1 EMS unit, and 2 battalion chiefs. Four engines and two trucks were expected. This error occurred at ECC and involved how the 2nd Alarm request was entered into CAD.
- There was much confusion over the units that were reportedly responding from Prince George's County and what units actually arrived. This confusion all occurred in reference to the 2nd Alarm assignment and was managed at the ICP. This confusion of units requested and units actually responding from Prince George's County is a recurring problem with full assignment incidents along the border area.
- No canteen service ever responded: this reinforces the need to ensure adequate drinking water is carried on all apparatus.
- Rehab was assigned to A701 and seemed to be a “moving target” due to the unknown status of building occupants (possible victims) and the need to rehab fire fighting crews. The Rehab Group should have been bolstered sooner in the incident to include ALS and supervisory capabilities.
- The EMS Duty Officer (EMS700) arrived about 20 –minutes into the incident and therefore had limited impact on patient management. Responding from the Rockville area is simply too far to expect the timely arrival of an EMS Supervisor at an incident in Battalion 1. Additional EMS Duty Officers are needed to provide better response time coverage for incidents such as this apartment building fire.

Units on Incident

1st Alarm

E702, E716, E701, E844, E719
 T834, T716
 RS742
 A702
 BC701
 BC702
 D700
 SA700
 EMS700

RID

AT719
RS801
M701

2nd Alarm

E712, E754, E811, E807, E855
T801, T812
RS814
A701

Other

A716
A712
MAU716

Conclusion

The stage for the success of this incident was set early with the arrival of the first due engine and ladder truck. Both companies worked together to make an aggressive attack on a rapidly advancing fire while at the same time initiating the incident command process. The second-due engine did a good job of quickly getting a back-up line into position and the first-due ambulance crew did a great job of getting ground ladders in position and assisting with stretching the long attack lines.

The fire was basically controlled by the 1st alarm companies with the 2nd alarm units being used to relieve crews and complete ancillary assignments. Fortunately, the civilian injury was not severe and the structure was left partially inhabitable - thus minimizing civilian displacements.